

**What is claimed is:**

1. A luminescent vest equipped with plastic optical fibers, comprising:

A top layer: a plastic film layer, having a transparent form, bearing letters and patterns according to preset designs;

5      A middle layer: a woven layer, wherein a specified number of plastic optical fibers form a bundle;

A bottom layer: a web-like woven layer;

The foregoing layers form a three-layer structure that is attachable to other clothing and products for extensive applications, including  
10      environmental protection uniforms, traffic policeman uniforms, road sweeping uniforms, security guard uniforms and general apparel, projecting light effects during nighttime for alarm effects.

2. The luminescent vest of claim 1, wherein the plastic optical fibers in the woven layer are lengthwise and crosswise chemical fibers.

15    3. The luminescent vest of claim 1, wherein the woven layer is interwoven by lengthwise plastic optical fibers and lengthwise plastic optical fibers.

4. The luminescent vest of claim 1, wherein the woven layer is interwoven by crosswise plastic optical fibers and lengthwise chemical fibers.

5. The luminescent vest of claim 3, wherein the chemical fiber in the woven  
20      layer is made of polyester, nylon or blended fiber.

6. The luminescent vest of claim 1, wherein the plastic optical fiber bundle faces a light-emitting unit to guide and project light.